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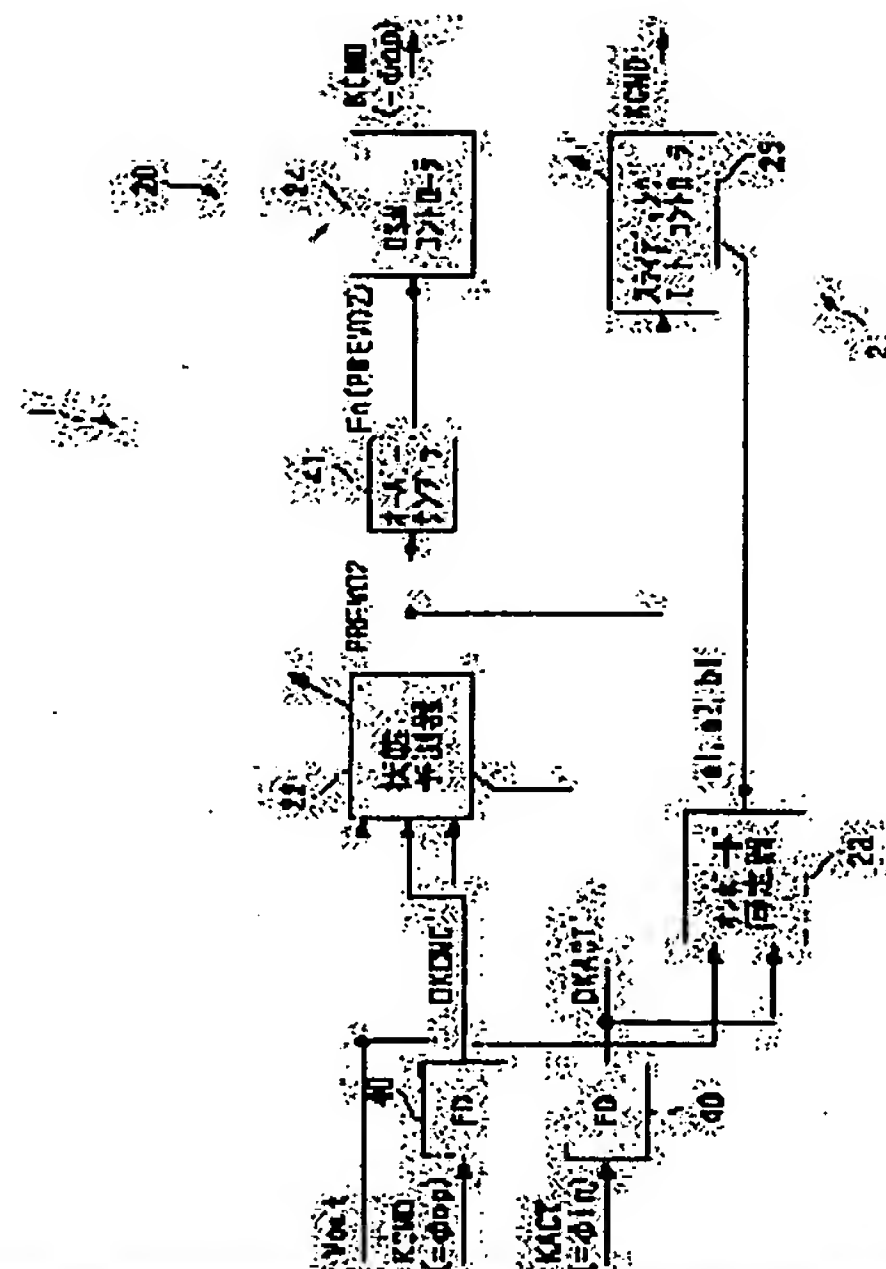
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## (54) CONTROL UNIT

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a control unit capable of eliminating a control timing gap between input and output of a control object and improving control accuracy when a control object having relatively large phase delay and useless time is controlled.

**SOLUTION:** An ECU2 of the control unit 1 is provided with a status estimate device 22 and DSM controller 24. The status estimate device 22 calculates an estimated value PREVO2 of an output deviation VO2 with a designated calculating interval  $\Delta T_k$  at the basis of estimate algorism, and the DSM controller 24 calculates a targeted air-fuel ratio KCMD corresponding to the calculated estimated value PREVO2 at the basis of  $\Sigma\Delta$  modulation algorism with a calculating interval  $\Delta T_m$  shorter than the calculating interval  $\Delta T_k$  of the estimated value PREVO2.



## LEGAL STATUS

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